20061018.ba v03_n966.bam.20061018

>From ???@??? Wed Oct 18 15:39:27 2006 -0600
Date: Wed, 18 Oct 2006 20:37:51 GMT
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 3966
Message-Id: <20061018203752.C11E11B7F0C@srvr1.theporch.com>

BOATANCHORS Digest 3966

Topics covered in this issue include:

1) WTD: Manual for Mackay 3007 Receiver
by John Poulton <jp@cs.unc.edu>
2) Re: Pwr supply requirements for Multi-Elmac AF-68
by "JAMES HANLON" <knjhanlon@msn.com>
3) Re: DX-100 audio mods?
by "Tom Rauch" <w8ji@contesting.com>
4) Hallicrafters SX 62A Parts needed
by "rdavis7" <rdavis7@comcast.net>
5) More info on Edison Radios
by "eug4not" <eug4not@bentongue.com>
6) Hallicrafters wanted
by Robert Kemp <bkemp@bobkemp.com>
7) RE: Hallicrafters SX 62A Parts needed
by "brian goldsmith" <brian.goldsmith@echo1.com.au>
8) RE: DX-100 audio mods?
by "brian goldsmith" <brian.goldsmith@echo1.com.au>
9) RE: Hallicrafters SX 62A Parts needed
by john <johnmb@nc.rr.com>
10) Re: DX-100 audio mods?
by "Marty Reynolds' debris field" <polepeeg@aa4rm.ba-watch.org>
11) Re: DX-100 audio mods?
by "Al Parker" <anchor@ec.rr.com>
12) Re: DX-100 audio mods?
by Edward Knobloch <k4pf@juno.com>
13) RE: DX-100 audio mods?
by "Ed Sieb" <esieb@sympatico.ca>
14) RE: DX-100 audio mods?
by "Ed Sieb" <esieb@sympatico.ca>
15) RE: DX-100 audio mods?
by "brian goldsmith" <brian.goldsmith@echo1.com.au>
16) Re: DX-100 audio mods?
by stuck in 50s <polepeeg@aa4rm.ba-watch.org>
17) Re: DX-100 audio mods?
by wb3fau@att.net
18) Re: DX-100 audio mods?

by "Arden Allen" <gumbear@pacbell.net>
19) Re: DX-100 audio mods?
by "Tom Rauch" <w8ji@contesting.com>
20) Re: DX-100 audio mods?
by "Tom Smith" <tsmith@hal-pc.org>

Date: Tue, 17 Oct 2006 15:17:16 -0400 (EDT)
From: John Poulton <jp@cs.unc.edu>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: WTD: Manual for Mackay 3007 Receiver
Message-ID: <Pine.LNX.4.64.0610171501470.4151@swan.cs.unc.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Do any of you have a manual for a Mackay 3007 receiver that you'd be willing either to sell or to copy (at my expense, of course)? I've searched the usual manual sources, and no joy.

Not only do I not have a manual for this radio, but it has a strange modification. There's a little subchassis that's been added, having a pair of 6BA6's, and a 6BA7 mixer, mounted on the chassis right behind the right side of the front panel--looks like a factory modification. Associated with that is an 'XTAL' socket on the front panel. All of the rest of the tubes in this rig are octal's.

It's possible that this mod was on all of the radios that were shipped, as the 6BA6's and 6BA7 are included with the tube complement in Osterman's listing for this radio, though the picture of the radio in that book doesn't show the XTAL socket.

Anyone have a '3007, or know what the added gizmo is? Maybe a xtal-controlled product detector?

Thanks, and 73, John K4OZY

--

Message-ID: <BAY110-DAV152FCA2FED4226A432C9D8A00E0@phx.gbl>
From: "JAMES HANLON" <knjhanlon@msn.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Pwr supply requirements for Multi-Elmac AF-68
Date: Tue, 17 Oct 2006 13:29:37 -0600
MIME-Version: 1.0
Content-Type: multipart/alternative;

```
     boundary="----=_NextPart_000_00A2_01C6F1F0.4AC928A0"

This is a multi-part message in MIME format.

------=_NextPart_000_00A2_01C6F1F0.4AC928A0
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

Jim,

The AF-68 manual says it wants 500 volts max at 160 ma and 250 volts max =
at 75 ma, also 6 volts at 5.2 amps or 12 volts at 2.6 amps.  A single, =
350 to 500 volt power supply that can deliver 235 ma can also be used =
with a dropping resistor to get the low voltage down to 250 volts. =20

73,

Jim Hanlon, W8KGI
112 Riders Road
Sandia Park, NM 87047
------=_NextPart_000_00A2_01C6F1F0.4AC928A0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*          ---REMAINDER OF MESSAGE TRUNCATED---            *
*     This post contains a forbidden message format        *
*  (such as an attached file, a v-card, HTML formatting)   *
*    Mail Lists at theporch.com only accept PLAIN TEXT     *
* If your postings display this message your mail program  *
* is not set to send PLAIN TEXT ONLY and needs adjusting   *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

------=_NextPart_000_00A2_01C6F1F0.4AC928A0--

------------------------------
Message-ID: <02ad01c6f223$2630d730$650fa8c0@radioroom>
From: "Tom Rauch" <w8ji@contesting.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: DX-100 audio mods?
Date: Tue, 17 Oct 2006 15:33:28 -0400
MIME-Version: 1.0
Content-Type: text/plain;
     format=flowed;
     charset="iso-8859-1";
     reply-type=original
Content-Transfer-Encoding: 7bit
```

Tom,

I went through my DX100 with good test equipment. I measured
distortion (modulation linearity) and frequency response.

I changed the 510pF caps to .01uF.

I added additional grid leak resistance in the control grid
circuit to make the conduction angle shorter. This improves
modulation linearity and efficiency, and makes the drive
setting much less critical. I can't recall what resistor I
changed, but it probably will be obvious to you.

I also added a .22uF 3kV capacitor in series with a 2 watt
resistor across the normal screen resistor. This increases
the amount of audio voltage feeding the screen. I optimized
that resistor for maximum linearity.

I'm sure you have the test gear and know how to juggle the
component values.

When I was done I could get nearly 100% negative and
positive peaks with very flat sides on a trapezoid and
frequency response was quite good. Sampling the RF,
detecting the audio, and running it into a distortion meter
showed very good results.

I spent a lot of time looking at it and those were the only
major improvements I could find, but I am a minimum kind of
modification guy. I don't believe in nearly gutting a rig
just to get 25kHz wide.

73 Tom

Message-ID: <000901c6f223$e01cf890$a100a8c0@richg5dmv9i4b8>
From: "rdavis7" <rdavis7@comcast.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Hallicrafters SX 62A Parts needed
Date: Tue, 17 Oct 2006 15:38:51 -0400
MIME-Version: 1.0
Content-Type: multipart/alternative;
     boundary="----=_NextPart_000_0006_01C6F202.58942CC0"

This is a multi-part message in MIME format.

------=_NextPart_000_0006_01C6F202.58942CC0

```
Content-Type: text/plain;
     charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

Trying to ressurect an old 62A and could use a lower cabinet half and =
front dial bezel as my radio suffered shipping damage in transit. Radio =
survived, including glass dial, cabinet took the brunt of damage. Minor =
dents, repainting, not a problem. reply off list to rdavis&@comcast.net =
thanks Rick K8PJQ 5-59 (keeping them glowing).
```

```
---------------------------------------------------------------------------=
-------
I am using the free version of SPAMfighter for private users.
It has removed 842 spam emails to date.
Paying users do not have this message in their emails.
Try SPAMfighter for free now!
```

```
---------------------------------------------------------------------------=
-------
I am using the free version of SPAMfighter for private users.
It has removed 842 spam emails to date.
Paying users do not have this message in their emails.
Try SPAMfighter for free now!
```

```
------=_NextPart_000_0006_01C6F202.58942CC0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *
*         ---REMAINDER OF MESSAGE TRUNCATED---             *
*     This post contains a forbidden message format        *
*  (such as an attached file, a v-card, HTML formatting)  *
*    Mail Lists at theporch.com only accept PLAIN TEXT    *
* If your postings display this message your mail program *
* is not set to send PLAIN TEXT ONLY and needs adjusting  *
* * * * * * * * * * * * * * * * * * * * * * * * * * * * * *

------=_NextPart_000_0006_01C6F202.58942CC0--

------------------------------
From: "eug4not" <eug4not@bentongue.com>
To: Old Tube Radios <boatanchors@theporch.com>
Date: Tue, 17 Oct 2006 15:57:13 -0400
MIME-Version: 1.0
Subject: More info on Edison Radios
Message-ID: <4534FD59.5088.AD4AEA@eug4not.bentongue.com>
Content-type: text/plain; charset=US-ASCII
```

Content-transfer-encoding: 7BIT
Content-description: Mail message body

Hi folks,

Today I placed more info on Edison Radios in Section 2 of http://
www.bentongue.com/ .
Included are a User's Manual, service data and other documents.

Best regards,

Ben

Message-ID: <45353B89.3060406@bobkemp.com>
Date: Tue, 17 Oct 2006 15:22:33 -0500
From: Robert Kemp <bkemp@bobkemp.com>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Hallicrafters wanted
Content-Type: text/plain; charset=us-ascii; format=flowed
Content-Transfer-Encoding: 7bit

ANyone out there have a SR400A for sale?
Bob
wa0vrc

From: "brian goldsmith" <brian.goldsmith@echo1.com.au>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: Hallicrafters SX 62A Parts needed
Date: Wed, 18 Oct 2006 06:27:45 +1000
Message-ID: <002201c6f22a$b4dae370$c5da8f9b@pcbriang>
MIME-Version: 1.0
Content-Type: text/plain;
     charset="us-ascii"
Content-Transfer-Encoding: 7bit

-----Original Message-----
From: rdavis7
Subject: Hallicrafters SX 62A Parts needed

I am using the free version of SPAMfighter for private users.
It has removed 842 spam emails to date.

Paying users do not have this message in their emails.
Try SPAMfighter for free now!

I am using the free version of SPAMfighter for private users.
It has removed 842 spam emails to date.
Paying users do not have this message in their emails.
Try SPAMfighter for free now!

******So what sort of a brain SPAMS everyone on the list with an ad for some sort of spam remover,TWICE.

The mind boggles!

Brian Goldsmith.

From: "brian goldsmith" <brian.goldsmith@echo1.com.au>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: DX-100 audio mods?
Date: Wed, 18 Oct 2006 06:43:35 +1000
Message-ID: <000301c6f22c$eaff23b0$c5da8f9b@pcbriang>
MIME-Version: 1.0
Content-Type: text/plain;
     charset="us-ascii"
Content-Transfer-Encoding: 7bit

-----Original Message-----
From: W4UOC@aol.com

I have an original DX-100 that has good output but comments are that the audio lacks lows.
I noted on the schematic that the coupling caps are 510mfd. Is this correct

or would you recommend any changes?

***I seriously doubt that your coupling capacitors are 510 mfd,more like .05mfd.

Brian Goldsmith.

Message-Id: <6.2.1.2.2.20061017165453.02fb8ca0@pop-server.nc.rr.com>
Date: Tue, 17 Oct 2006 16:55:44 -0400
To: Old Tube Radios <boatanchors@theporch.com>
From: john <johnmb@nc.rr.com>
Subject: RE: Hallicrafters SX 62A Parts needed
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii; format=flowed

Dunno, but your repost made it 4 times....

At 04:27 PM 10/17/2006, brian goldsmith wrote:

<snip>

>******So what sort of a brain SPAMS everyone on the list with an ad for some
>sort of spam remover,TWICE.
>
>The mind boggles!
>
>Brian Goldsmith.

--
Internal Virus Database is out-of-date.
Checked by AVG Free Edition.
Version: 7.1.405 / Virus Database: 268.12.8/455 - Release Date: 9/22/2006

Message-ID: <33057.64.238.102.180.1161119781.squirrel@fracas.netboobie.org>
Date: Tue, 17 Oct 2006 17:16:21 -0400 (EDT)
Subject: Re: DX-100 audio mods?
From: "Marty Reynolds' debris field" <polepeeg@aa4rm.ba-watch.org>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
MIME-Version: 1.0
Content-Type: text/plain;charset=iso-8859-1
Content-Transfer-Encoding: 8bit

you're loosin' all your highs & lows

it's funny how the feelin' goes....

fm Desperado

so ask Linda Rondstadt

she's as good as anyone on 'opinion audio mod.s.'

no substitute for just running an audio response curve w. an oscillator
and ur ever lovin' scope.

I'm sure I'm a huge help

Senor Rocket Man

Message-ID: <00a401c6f248$1b73f870$3201a8c0@w8ut>
From: "Al Parker" <anchor@ec.rr.com>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: <boatanchors@theporch.com>
Subject: Re: DX-100 audio mods?
Date: Tue, 17 Oct 2006 19:57:43 -0400
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

And all this science I don't understand
It's just my job five days a week

73,
ugly turkey

----- Original Message -----
From: "Marty Reynolds' debris field" <polepeeg@aa4rm.ba-watch.org>
To: "Old Tube Radios" <boatanchors@theporch.com>
Cc: <boatanchors@theporch.com>
Sent: Tuesday, October 17, 2006 5:16 PM
Subject: Re: DX-100 audio mods?

> you're loosin' all your highs & lows
>
> it's funny how the feelin' goes....
>
> fm Desperado
>
> so ask Linda Rondstadt
>
> she's as good as anyone on 'opinion audio mod.s.'
>
> no substitute for just running an audio response curve w. an oscillator

> and ur ever lovin' scope.
>
> I'm sure I'm a huge help
>
>   Senor Rocket Man
>

To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Date: Tue, 17 Oct 2006 21:12:55 -0400
Subject: Re: DX-100 audio mods?
Message-ID: <20061017.211255.3784.0.k4pf@juno.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
From: Edward Knobloch <k4pf@juno.com>

Hi, Brian

The original DX-100 audio coupling caps are only 510 uuF or .000510uf,
so changing them to .01 as Tom Rauch suggests is increasing by 20 times
the value of the coupling caps.

The original first grid leak resistor in the 12AX7 is only 470K,
so increasing that value will also help decrease the low end rolloff.
Two megs or so here would be a good value.
This is especially important if you intend to use a D-104 mic,
which needs a high Z grid leak to avoid low end roll-off.

73,
Ed Knobloch

On Wed, 18 Oct "brian goldsmith" <brian.goldsmith@echo1.com.au> writes:
>
>
> -----Original Message-----
>
> ***I seriously doubt that your coupling capacitors are 510 mfd,more
> like
> .05mfd.
>
> Brian Goldsmith.
>

>
>

Message-ID: <BAYC1-PASMTP04B8F19C9FE2BAD9AB59A9C90F0@CEZ.ICE>
From: "Ed Sieb" <esieb@sympatico.ca>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: DX-100 audio mods?
Date: Tue, 17 Oct 2006 21:39:28 -0400
Message-ID: <NIBBKNOPFNLAGHLELMPLIEMIKMAA.esieb@sympatico.ca>
MIME-Version: 1.0
Content-Type: text/plain;
     charset="US-ASCII"
Content-Transfer-Encoding: 7bit

Actually, most users change out the grid resistor to 10 megohms.

Ed, VA3ES

Message-ID: <BAYC1-PASMTP02C782A36E577E839465A7C90F0@CEZ.ICE>
From: "Ed Sieb" <esieb@sympatico.ca>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: DX-100 audio mods?
Date: Tue, 17 Oct 2006 21:42:07 -0400
Message-ID: <NIBBKNOPFNLAGHLELMPLOEMIKMAA.esieb@sympatico.ca>
MIME-Version: 1.0
Content-Type: text/plain;
     charset="US-ASCII"
Content-Transfer-Encoding: 7bit

The DX-100 has some intentional audio restricting components in the original circuit.
Change out all coupling cap to .01Mf to start. Change out input 12AX7 grid resistor to 10 Megohms.

More detailed info can be gleaned from the
AM Window site:
http://www.amwindow.org/tech/htm/mods.htm

specifically

DX-100 Audio Mods - by the TimTron
http://www.amwindow.org/tech/htm/dx100.htm

and

DX-100 Mods - by Ed, AA8TV
http://www.amwindow.org/tech/htm/dx100/dx100.htm

and
Apache Audio Mods by Fran, W3SCC
http://www.amwindow.org/tech/htm/w3sccmods.htm
check front-end audio mods; same audio front-end as DX-100.

Hope that helps,

Ed, VA3ES

Tom Koch - W4UOC wrote:
I have an original DX-100 that has good output but comments are that the audio lacks lows.
I noted on the schematic that the coupling caps are 510mfd. Is this correct or would you recommend any changes?

From: "brian goldsmith" <brian.goldsmith@echo1.com.au>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: RE: DX-100 audio mods?
Date: Wed, 18 Oct 2006 17:05:33 +1000
Message-ID: <000401c6f283$cdd20ad0$c5da8f9b@pcbriang>
MIME-Version: 1.0
Content-Type: text/plain;
charset="us-ascii"
Content-Transfer-Encoding: 7bit

-----Original Message-----
From: Edward Knobloch

The original DX-100 audio coupling caps are only 510 uuF or .000510uf, so changing them to .01 as Tom Rauch suggests is increasing by 20 times the value of the coupling caps.

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Two megs or so here would be a good value.
This is especially important if you intend to use a D-104 mic,
which needs a high Z grid leak to avoid low end roll-off.

73,
Ed Knobloch

***Agreed!! Brian G.

On Wed, 18 Oct "brian goldsmith" <brian.goldsmith@echo1.com.au> writes:
>
>
> -----Original Message-----
>
> ***I seriously doubt that your coupling capacitors are 510 mfd,more
> like
> .05mfd.
>
> Brian Goldsmith.
>
>
>

Date: Wed, 18 Oct 2006 05:43:52 -0400 (EDT)
From: stuck in 50s <polepeeg@aa4rm.ba-watch.org>
Message-Id: <200610180943.k9I9hq6A016674@fracas.netboobie.org>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Subject: Re: DX-100 audio mods?

r u sure senor turkey ain't elton john?

From: wb3fau@att.net
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: DX-100 audio mods?
Date: Wed, 18 Oct 2006 15:10:08 +0000
Message-Id:
<101820061510.4732.453643CF0001ABE70000127C21603760219A0E00CC0D99@att.net>

Tom, there are a few easy mods to do to make the Dx-100 sound better. Using a
D104 mic
and crystal cartridge, change the 1st stage audio load resistor to at least 1
meg.-
this would be on the mic connector hot terminal to ground. You should find a

500k resistor in there originally installed. Also, as you noticed, the value of the coupling capacitors is only 510 pf. Replace those with some .01uf caps. Use Sprague orange drops or equiv.
On the cathode of the 1st audio stage, you will find a 2 uf cap. Change this cap to about 10uf. Thats it! You need not do anything else. If you do not get a wow on improvement your listeners are lying....Russ.

Message-ID: <001f01c6f2dd$ed65e510$9ae47443@KB6NAX>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: DX-100 audio mods?
Date: Wed, 18 Oct 2006 10:50:35 -0700
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

What's all this boatanchorphoolery?

I've never modified a DX-100 for "hi-fi" audio. The obsession with audio bandwidth seems to be to be out of place with the traditional technical objectives of amateur radio, effective communications. True, excessivley restricted audio bandwidth can be annoying to listen to but it was mentioned that the DX-100 had better "punch" unmodified. The purpose of distortion generating clipping and filtering was not cleaner audio, but greater overall modulation for better signal to noise performance, i.e., shaping the power bandwidth for best intelligibility through noise. Listening to a bassy station through QRM and static can also be annoying as so much of the transmitter's power is wasted pumping air around the receiving ham shack.

Increasing coupling capacitance in the audio chain pushes the stability margin towards low frequency oscillation. Pumping the modulator at low frequencies effects the life of the modulator tubes as power is wasted trying to pass power to the final below the transformer's distortion producing cutoff point. Extending the -3DB rolloff point down to perhaps 100Hz is the proper approach to increasing audio naturalness without producing the deleterious effects I mentioned. Carefull testing of modulation utilizing an audio oscillator and a dummy load is essential to tuning transmitter audio bandwidth properly. The results will be more satisfying.

Audiophoolery is a chase after fashion. Frankly, most hams I know don't look to be fashion conscious ;-)

Arden Allen
KB6NAX

Message-ID: <00b301c6f2e6$2c324650$650fa8c0@radioroom>
From: "Tom Rauch" <w8ji@contesting.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: DX-100 audio mods?
Date: Wed, 18 Oct 2006 14:49:32 -0400
MIME-Version: 1.0
Content-Type: text/plain;
format=flowed;
charset="iso-8859-1";
reply-type=original
Content-Transfer-Encoding: 7bit

> What's all this boatanchorphoolery?
>
> I've never modified a DX-100 for "hi-fi" audio. The
> obsession with audio
> bandwidth seems to be to be out of place with the
> traditional technical
> objectives of amateur radio, effective communications.

I'm with you.

By simply changing the 510pF coupling caps to a reasonable value, and a regular disk capacitor in this application will have no measurable distortion, the low frequency response will be nearly flat down to a few hundred Hz.

It's certainly true the bass picks up on a D104 when it drives a higher impedance, but mine was fine with no need to roll the lows up any more. The iron won't handle a lot of lows anyway without distortion.

The rest of the mods I made to mine were strictly to improve modulation linearity. The PA grid bias is a little low to put the tubes hard enough into class C and the screen needed a touch more audio level to minimize distortion. The bulk of the improved linearity came from increasing the audio power applied to the screen by adding a series resistor and capacitor.

Without changing those 510pF caps the audio rolls off far too much as you move down towards 500 Hz or so. Several dB.

The Ranger and Valiant have similar excessive low rolloff.

You can see it in a spice model at

http://www.w8ji.com/Johnson%20audio%20mods.htm

I have an audio sweep generator I use to plot frequency response. I use a diode detector on the RF line to feed a scope Y axis, while the generator frequency control voltage feeds the X axis.

It's interesting to put some of the mods in step-by-step and watch as some mods undo what other mods help! My own opinion is to do the fewest changes possible, and to not irritate people up or down the band with excessive highs and the modulation transformers with excessive lows.

73 Tom

```
From: "Tom Smith" <tsmith@hal-pc.org>
Subject: Re: DX-100 audio mods?
To: Old Tube Radios <boatanchors@theporch.com>
Date: Wed, 18 Oct 2006 15:35:46 -0500
Message-ID: <web-316573340@mail.hal-pc.org>
MIME-Version: 1.0
Content-Type: text/plain; charset="ISO-8859-1"; format="flowed"
Content-Transfer-Encoding: 8bit
```

"most hams I know don't look to be fashion conscious"

This might be true but most hams that I know don't mess with AM anyway. The ones that do are using the mode as a platform for having a little fun and experimenting with gear without the cost of buying a commercial broadcast transmitter and support equipment. Most aren't trying to cut through the noise to establish emergency, just have a little fun.

Different strokes...

Tom Smith N5AMA

On Wed, 18 Oct 2006 10:50:35 -0700
 "Arden Allen" <gumbear@pacbell.net> wrote:
> What's all this boatanchorphoolery?
>
> I've never modified a DX-100 for "hi-fi" audio. The obsession with
>audio

> bandwidth seems to be to be out of place with the traditional
>technical
> objectives of amateur radio, effective communications. True,
>excessivley
> restricted audio bandwidth can be annoying to listen to but it was
>mentioned
> that the DX-100 had better "punch" unmodified. The purpose of
>distortion
> generating clipping and filtering was not cleaner audio, but greater
>overall
> modulation for better signal to noise performance, i.e., shaping the
>power
> bandwidth for best intelligibility through noise. Listening to a
>bassy
> station through QRM and static can also be annoying as so much of
>the
> transmitter's power is wasted pumping air around the receiving ham
>shack.
>
> Increasing coupling capacitance in the audio chain pushes the
>stability
> margin towards low frequency oscillation. Pumping the modulator at
>low
> frequencies effects the life of the modulator tubes as power is
>wasted
> trying to pass power to the final below the transformer's distortion
> producing cutoff point. Extending the -3DB rolloff point down to
>perhaps
> 100Hz is the proper approach to increasing audio naturalness without
> producing the deleterious effects I mentioned. Carefull testing of
> modulation utilizing an audio oscillator and a dummy load is
>essential to
> tuning transmitter audio bandwidth properly. The results will be
>more
> satisfying.
>
> Audiophoolery is a chase after fashion. Frankly, most hams I know
>don't
> look to be fashion conscious ;-)
>
> Arden Allen
> KB6NAX
>

End of BOATANCHORS Digest 3966
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